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ABSTRACT

This instructional unit is comprised of four lessons dealing with conducting a four part class in basic rock climbing. The class is suitable, with modifications, for small private parties, small groups such as the Boy Scouts, or larger, organized groups such as climbing clubs. Four instructional methods are used: instructional media, demonstration, simulation, and field trips. (JD)

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A UNIT PLAN
FOR
A BASIC ROCK CLIMBING COURSE

by

Brian L. Holcomb

12/08/1988

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BASIC ROCK CLIMBING CLASS

The following four lessons comprise one unit of instruction dealing with conducting a four part class in basic rock climbing. The class is suitable, with modifications, for small private parties, small groups such as the Boy Scouts, or larger, organized groups such as climbing clubs.

Four instructional methods are used. These are, in order, instructional media, demonstration, simulation, and field trip. The class begins with an introductory slide show to inform and enthuse prospective students. Those interested in taking the class proceed to an indoor or backyard demonstration session where the instructor demonstrates processes to the student and the students understanding is checked by his re-demonstration of the process to the instructor. The third session involves using the simulation process in order for the student to be able to try the equipment and techniques under real world conditions without the strain of great vertical exposure. The last lesson uses the field trip method to take the students on an actual climb where they will use the fruits of the prior three lessons.

This unit is designed only to take the students through one basic climb with the associated techniques and procedures necessary to do that climb. No attempt is made to teach the students the skills necessary for more complicated climbs, or to be able to lead a climb.

The skills learned are:

1. Belaying
2. Rappeling
3. Knots and harnesses
4. Basic climbing techniques
5. Care of the ropes
6. Basic climbing safety

This unit of instruction is written for potential instructors. No attempt is made to explain the the processes or the terminology involved to the non-climbing reader. It is assumed that any person using this lesson plan is qualified to teach the subject matter.

LESSON 1

TITLE: A Basic Rockclimb Slide Show.

OBJECTIVE: The objective of this lesson is to present a slide show about rock climbing for the purpose of entertaining and educating perspective rock climbing students.

INTRODUCTION: This lesson will use instructional media, specifically the slide projector, in order to allow the prospective student to see what rock climbing is about, and what the student might have to do in the way of training in order to actually do a climb. The use of the slide projector, featuring slides taken on actual climbs, and during training sessions, will allow a great degree of realism in the presentation, in addition to presenting a scenic, colorful, and thrilling package.

MATERIALS NEEDED: This section enumerates the basic materials list for this lesson, however, no materials list can replace careful study of the location for the showing! It is very important that the presenter communicate with the contact person for the group requesting the showing about the following:

1. Group size
2. Time allowed
3. Physical space of the hall
4. Screen size
5. Audio system (if large hall)?
6. Who supplies projector

Communications on these matters up front can prevent a lot of embarrassment later.

1. Slide projector. If you use your own projector, there should be no problem. If you use a projector belonging to the group, make sure beforehand that it will accept your slide holding system. You want to have the show completely put together before the showing, and do not want to be re-racking five minutes prior to air time.

2. A spare bulb. This sounds trite, but as a matter of historical note, Murpheys Law, which states that "any thing which can go wrong, will go wrong", was first formulated in 1909, when Thomas A. Edison, having invented the worlds first slide projector, containing the worlds first and only slide projector bulb, invited a group of friends over for the worlds first slide showing. Needless to say....

3. A screen. Regardless of who supplies the screen, the key is to have a screen which fits the room, and is large enough to hold an image comfortable for viewers in the furthest seats.

4. Extension cord. Unless you know that you can reach the plug-in from the projector site, you should carry at least a fifty foot extension if you are going to be working in a large hall.

5. Duct tape. This can be used to tape the power cord to the floor at intervals to keep it from being pulled out of the socket or tripped over. If only a portion of the extension cord is being used, it can be utilized to tie up the rest of the cord.

6. A small flashlight. This can be used for emergencies or to enable the person responsible for the lights to find the correct switchs at the conclusion of the show.

7. A pointer. This can be anything from a yardstick to a lightbeam pointer, but it is handy for pointing out details in the instructional slides if the presenter is showing in a large format situation.

8. An audio system. For a showing with a large audience, it may be necessary to use a sound system. Nothing can beat familiarity with a built in system. If you must use a portable system, it is suggested that it is installed and tested at least a day before the showing to allow for adjustments or different equipment.

9. Remote operating control. If the size of the room necessitates the presenter being physically separate from the projector, it will be necessary to use a remote control to operate the projector. The remote control cables supplied with the projector are only about six feet long, so that it will be necessary to procure an appropriate extension for this.

note: If you are using slides with paper frames, which the majority of commercial slides have, do not use Kodak 140 slide rotary trays. If the slides are at all bent or dog-eared, they will hang up in the trays, and not drop. Use only Kodak 80 slide trays with the wider slide comparments, even though it may be necessary to change reels more often.

LOCATION: The presenter should know the physical size of the location and the size of the audience before-hand, so that appropriate steps can be taken. The main concern is the location of the presenter in relation to the projector. If the room is large, and a p.a. system is to be used, the presenter must be where he has access to the system. If this places him/her away from the projector, be sure that the remote conrol will reach. If the room is quite large, and there is no p.a. system, it is better if the presenter stand at the front of the room, and speak facing the audience. This makes the remote control mandatory, and the extension critical. Remember that if you must project your voice naturally over a long period of time, you should schedule a break or arrange for some water.

SCRIPT: Depending on the requirements of the group, some or all of the following may be included. The important point is to realize that at this point, the audience are not students, but prospective students, and that the goal is not so much to teach them as to enthuse and inform them. The point of the showing is to allow them to decide if they want to pursue climbing. It is definitly not to scare them.

Topics might include:

1. Introduction- what is rock climbing? Show various types in different locales.

2. What is involved? Show standard climbing activities such as rappeling and belaying.

3. Taking a class. Show some slides of students in a class. Emphasize the safety aspects, and show the involvement of the instructors. Show the viewers exactly what they might expect to do, and how it will relate to a real climb.

4. Equipment. Show the basic equipment needed. Explain the cost, and that it is possible to start on very little investment.

5. Going on a climb. Show some slides of a basic climb, preferably in the area that the students would actually go to. This should be as realistic as possible, in that the viewer shouldn't receive the impression that they might end up on something looking like slides taken on a very difficult advanced climb. Explain that students taking the class would do something no harder than what you are showing.

6. Wrap-up. Show some slides of various climbs emphasizing the variety and rewards to be found in climbing. These should be the best and most scenic slides in the show.

CONCLUSION: This is the point where there should be a call for questions from the viewers. Shut off the projector (leaving the fan on), and ask for questions. If no one speaks up, ask anyone what they thought of the show and some general conceptual question such as "why do you think someone might want to do this", or "what role do you think that this type of activity might have in our industrial, urbanized lives?" This should start a discussion.

Depending on the group situation, the presenter may want to turn control back to the group contact at this point.

Remember to make arrangements for the return of rented equipment if necessary.

LESSON 2

TITLE: A basic rock climbing demonstration class.

OBJECTIVE: The objective of this lesson is to give students interested in learning about rock climbing an introduction to the terminology, equipment, and techniques involved without having to organize a full field trip.

At the conclusion of this lession, the student should be able to perform the following:

1. Tie the following knots
   - A. Ring Bend
   - B. Figure-8
   - C. Prussik
   - D. Bowline
2. Belay with a body belay and an artificial device.
   - A. Belay a leader
   - B. Belay a follower
3. Rappel
   - A. Set up the rappel harness
   - B. Explain the rappel procedure (it is not possible to demonstrate this indoors)
4. Clip through fixed protection
5. Demonstrate the proper care of and coiling of a rope.

INTRODUCTION: This lesson uses the demonstration method to allow the student to see and practice the techniques involved. As an ancillary method, instructional media can also be used in the form of a commercial video on climbing.

The advantage of this additional method is that it is very difficult to show the dynamic nature of the process with still photography as in Lesson 1, and an indoor setting does not lend itself to realism. A video is the perfect "indoor" solution to this and can be shown after the initial demonstrations.

The disadvantage to the video is time. If the session is being held in the evening, the 30-90 minute running time is prohibitive considering the amount of material to be covered. A further disadvantage is the cost and time involved in renting equipment if it is not available at the class site.

This session will be held in any setting from a rented hall, school, clubrooms, to a living room, depending on the size and nature of the group.

There should be an instructor and one assistant instructor for every 4-6 students.

MATERIALS NEEDED: the following will be needed (per student):

1. 1- 10' sling for anchors
2. 1 - 15' sling for a harness
3. 1 - 7' sling for rappel
4. 5 'biners
5. 1 20-30' piece of old climbing rope

Optional: A small hardware rack, a helmet, and some climbing shoes. A written review sheet for the student to keep and study

between the second and third lessons.

THE DEMONSTRATIONS: Demonstrations of the following skills should be given with the instructor demonstrating and explaining the skill, and then the student demonstrating to the instructor to show that they have learned the skill.

1. Knots. Explain and demonstrate the following:
   A. Bowline
   B. Ring bend
   C. Figure-8
   D. Prussik knot

   Have the students explain to the instructor what these knots are used for, as well as be able to tie them.

2. Belaying. Explain to the students:
   A. The origins of the term
   B. Explain the absolute importance of this procedure, and that every climber is, literally, his brothers keeper.
   C. Explain the verbal signals and their meaning.
   D. Demonstrate the variations on the process, and why they are used.
   E. Break the students into teams
      1. Have each student demonstrate the belay to the instructor with the other student acting as the climber.
      2. Reverse the process
   F. Have each student lean back on the rope to see that the belayer understands what to do in a fall.

3. Rappeling.
   A. Explain what rappeling is.
   B. Demonstrate the rappel hook-up
   C. Demonstrate how to check the set-up.
   E. Explain the total reliance on equipment, and why rappeling is so dangerous.
   F. Have each student:
      1. Make a rappel harness
      2. Hook up a rappel
      3. Explain the system to the instructor

4. Ropes
   A. Explain the importance of the rope and rope safety.
   B. Demonstrate how to coil a rope
   C. Have the students demonstrate the coil.

5. Hardware and protection.
   A. Show the use of hardware as protection
   B. Rig a short horizontal line
      1. Show two ways to clip through
      2. Have the student clip through and explain the logic to the instructor.

WRAP-UP: This is the conclusion of the lesson. At this point the instructor could show the video, using the stop-action feature to point out to the students the important points during the processes occuring in the video that the students have just demonstrated.

Next, collect all hardware. Pass out the review sheet. explain it, and call for questions.

Explain to the students what the next step in the process will be (Lesson 3, a live field exercise). Explain that it is necessary to do this relatively boring exercise in order to save time in the field.

From the instructors point of view, this intermediate lesson may also serve, through self elimination, to remove students who are not really interested. This is important, since the over-all student-instructor ratio is so critical to the success of the class.

If the next session has been scheduled, announce that, and what the students can do to prepare for it.

Dismiss the class.

LESSON 3

TITLE: A Basic Rock Climb Practice Session.

OBJECTIVE: The objective of this lesson is to enable the student to gain sufficient "real world" practice in the basic techniques involved in rock climbing to be able to complete a simple climb using the instructor as a guide. The student will practice the techniques involved until he/she and the instructor are convinced that the student can perform sucessfully on the actual climb.

INTRODUCTION: This lesson will use the simulation method to allow the student to carry out these activities without the pychological pressure of extreme vertical exposure, and with the constant attention and reassurance of the instructor, as would not be possible on an actual climb. Besides the direct benefit to the student, this method has a direct benefit to the instructor in that the chance of losing control of the party is much less in this structured environment.

The simulation involved is to use a revolving "work station" concept where the student moves from station to station practicing each of the skills necessary for doing the actual climb. Each skill can be practiced under direct supervision to ensure proper technique. At the end of the lesson, the student should have basic proficiency in the following skills:

1. Knot tying
2. Rigging the personal harness
3. Belaying a leader or follower
4. Basic climbing techniques
5. Proper safety procedures
6. Executing a belayed rappel

In this fashion, it is possible to simulate all of the basic skills without the uncertainty factor that comes from losing direct contact with the student.

MATERIALS NEEDED: Each station will need the following:

1. Two full length climbing ropes
2. Several long anchor slings
3. A small hardware rack
4. At least one instructor
5. An agenda to be followed by the instructor

Each student needs the following:

1. Food and water
2. Extra clothes
3. A harness and several 'biners
4. A helmet
5. Some appropriate shoes

Group equipment:

1. A first aid kit
2. An instructor with at least basic first aid proficiency

THE LOCATION: The location needs to meet the following criteria.

The area should be reasonably close to the road - the less time spent hiking, the more time spent climbing. The area should have enough short walls so that the instructor can have the student under direct observation at all times. The area, particularly the upper anchor ledges, should be free of loose rock. The area should have enough variety all of the needed skills plus most of the basic climbing techniques, and should provide challenges for all ranges of ability. The upper anchor points should be such that the anchors can be moved using a minimum of equipment. Bolts should be avoided unless the area is being used steadily.

THE SIMULATION STATIONS: At least six stations should be set up. The student should rotate through each of these stations and be able to perform the activity at each station proficiently. Each station needs a full time assistant instructor, but the head instructor should avoid being tied down at one of the stations, so as to be free to coordinate movement and make adjustments in the schedule. When the group arrives at the location, the head instructor needs to have an orientation meeting with the entire group covering the following:

1. Introduce the other instructors
2. State exactly what will be done and why
3. Give the time for the lunch break, the time to begin taking down the equipment, and the absolute departure time.
4. If students need to have check sheets signed off, be sure that they are available, and that all the instructors have pencils.
5. Divide the students into groups and assign each of those groups to an initial location. Decide on the order of rotation.
6. Distribute the equipment.
7. Call for questions.
8. Dismiss the groups to their initial stations.

STATION 1: Knot tying and harnesses.

Purpose: The purpose of this station is to see if the students have retained the knot tying proficiency they acquired in lesson 2, and to insure that they are familiar with the harness that they are using.

At this station, students will be asked to demonstrate for the instructor the following knots, and cite the appropriate uses for each.

1. Bowline
2. Ringbend
3. Prussik
4. Figure 8

Further, the students must demonstrate that they are totally familiar with the harness that they are using.

When the instructor is satisfied that the students are proficient, they may be released to the next station.

STATION 2: Belaying

Purpose: The purpose of this station is to verify that the student can execute the belay of either a following or leading

climber safely.

The instructor at this station should begin by reminding each student of the absolute seriousness of this activity.

At this station the student should execute the following:

1. A hip belay
2. A belay with an artificial device
3. The proper use of the oral belay signals
4. The belay of the following climber
5. The belay of a leading climber
6. The student should be able to explain the belay system to the instructor.

When the instructor is satisfied through several mock "falls" that the student will react properly in a real fall, and that the student properly understands the importance of this activity, then they may release that student to the next station.

STATIONS 3-5: Climbing techniques.

Purpose: The purpose of these stations is to give the student actual practice in the techniques needed to climb on rock, and a chance to actually try the process. It should be explained that rock climbing is just like gymnastics, but with rock instead of parallel bars or rings, and certain techniques or "moves" are necessary in order to perform sucessfully.

Station 3 is face climbing, and the following things should be emphasized:

1. Keep the hands low
2. Put all possible weight on the feet
3. Look for holds to the sides, as well as above
4. Rest on the large holds, and climb rapidly over the small holds to conserve strength.

Station 4 is crack climbing. The following points should be noted:

1. Put all possible weight on the feet.
2. Explain and demonstrate what jamming is
3. Utilization of face holds outside the crack
4. Use of the hip or leg to rest on
5. Use of the lay-back or bridge in a corner

Station 5 is chimney climbing. Show the following:

1. All students tend to get to far "into" the rock. Explain the balance between security movement.
2. Show the use of leg-to-leg, back-to-knee, and squeeze techniques.
3. Show how to rest in a chimney

These are 3 minimum climbing stations that should be set up. At each station, the instructor should demonstrate the proper form and give hints on how to maximize efficiency. Also have the students belay each other under the observation of the instructor. Stress that the student does not need to be a great athlete to enjoy climbing and that climbing can be found at all levels.

Many students may be intimidated by the physical challenge, and every instructor should do the utmost to see that each student succeeds on as many things as possible in this section.

STATION 6: Rappeling

Purpose: The purpose of this station is for the student to be able to see the set-up for a rappel, and to be able to practice several belayed rappels. The instructor should realize that this is something that it was probably not possible to see at Lesson 2. Therefore, the instructor should start at the absolute beginning at this station. The following points should be made.

1. The rappel chain links, and what can go wrong
2. The absolute reliance on equipment
3. How to check a rappel anchor
4. How to check the rappel harness set-up
5. The belay set-up and rappeler/belayer coordination
6. The proper stance
7. Getting off rappel

This process bothers many people. To start with, pick a rappel station that does not overhang, and does not have a vertical start. This should be less intimidating to the student.

WRAP-UP: The tear down process.

If time allows when all of the students have finished all of the mandatory stations, it may be possible to rig more climbing stations for the students and instructors. Do this if possible.

Well before the absolute departure time, signal the instructors to tear down the stations. Do not let anyone leave separately. Account for all the gear before anyone leaves, and make sure that the students carry the gear back. Do not leave this for the few instructors!

When all the students are back to the cars, call the instructors aside, or walk back with them separatly, and talk over the session. Thank them, because every one of them would rather have been out climbing. Second, find out who were the strong students, and who were the weak ones. Find out if any students were too weak to go on the final climb.

If the final climb has been scheduled, announce this to the students, and detail the date by which, and the way in which, the final plans will be relayed to them.

Dismiss the class.

LESSON FOUR

TITLE: Conducting a basic rockclimb.

OBJECTIVE: The objective of this lesson is to take the party of students on an actual rock climb. This represents the "graduation" from the class that they have taken, and which comprises these lessons.

INTRODUCTION: This lesson involves conducting an actual climb. It uses, what is, in essence, the field trip method. The students, led by the instructor and an assistant, acting in the role of guides, will actually do the activities that were demonstrated to them in lesson two, and that they simulated in lesson three.

This is what is known in the military as a "live fire exercise", and it should be absolutely understood by everyone that safety, not graduation, or getting to the top, is the paramount issue. The students, if they have been selected to participate, should be sufficiently skilled at this point to be able to carry out all of the skills necessary for this activity as far as their own person goes. They are not expected to make decisions or to assume leadership roles.

The climb will involve reaching a summit pinnacle using multi pitch climbing, and at least one rappel.

The climbing team will consist of the instructor, an assistant, and absolutly no more than six students. For logistical reasons, four would be the ideal limit.

MATERIALS NEEDED: The following materials will be needed.

1. A hardware rack
2. Ropes. The number of ropes needed is the total number in the party minus one.
3. Helmets. Everyone needs one
4. First aid kit.
5. Name and phone number of appropriate emergency agency
6. Personal gear. Each person needs:
    - A. Extra clothes
    - B. Food
    - C. Water
    - E. Harness and rappel gear
    - F. Appropriate shoes
    - G. A pack
    - H. A prospectus. This needs to be sent out sufficiently ahead of time to allow the students to prepare.

THE ROUTE: The most crucial part of this lesson is the selection of the route to be climbed. The following criteria should be taken into consideration.

1. Length of approach and descent
2. Length of route (in estimated time)
3. Rock quality
4. Ease of communications
5. Over-all difficulty
6. Lack of objective dangers

7. Lack of subjective dangers(traverses, great exposure)

It is mandatory that the instructor have done the route before, so that he/she can mentally organize the climb and reherse with the assistant prior to leaving the ground. The overall consideration is- can the climb be done safely in the time allowed, considering the ability of the group, and the equipment available. For the instructor, the primary consideration is does the route configuration allow him to remain in control of the group? The absolute esthetics and enjoyment of the route have to be subordinated to the prior qualities.

THE CLIMB: Since every climb is different, it is impossible to be specific. The following areas should be constantly monitered.

1. Climbers. Is anyone having serious problems?
2. Time. Is the group on schedule?
3. Weather. Is it still reasonable to proceed. Rember that it will take the group time to retreat from the climb.
4. Organization. Is the game plan still holding up?
5. Equipment. Does the leader still have enough of the rack to continue to lead? Is the students equipment still in safe condition?
6. Morale. Is the group in good spirits and enjoying the climb? Does anyone feel abandoned and need attention?

CONCLUSION: Assuming that the climb goes well, and that the group returns safely, a debriefing should be held, either just after the climb, prehaps at a picnic ground, or later. The purpose of this is twofold. First is to allow the group to share their experience, and enjoy it together again. Second, this is the time for the instructor to offer guidance to those who might want to go on in climbing and to help those who do not, to see that the experience that they had was a worthwhile experience in itself. In no event should anyone who participated be allowed to walk away feeling that they got nothing out of the experience.

This requires some sensitivity on the part of the instructor, but the true satisfaction for the instructor lies in giving the student a fine experience, and this requires work.